DOCUMENT RESUME

ED 466 087 EF 005 270

TITLE	New York City School Construction Authority: Improvements Needed in Construction Contracting Practices. Final Report.
INSTITUTION	New York State Office of the Comptroller, Albany. Div. of Management Audit.
REPORT NO	R-96-N-5
PUB DATE	1997-03-27
NOTE	43p.
PUB TYPE	Reports - Evaluative (142) -- Tests/Questionnaires (160)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Construction Costs; *Construction Management; Construction Programs; *Contracts; Educational Facilities Improvement; Elementary Secondary Education; School Construction
IDENTIFIERS	Contract Management; Contractors (Construction Industry); New York City Board of Education; *New York City School Construction Authority

ABSTRACT

The purpose of this audit was to determine whether New York City's School Construction Authority (SCA) followed its required procedures for awarding and monitoring contracts for construction work in New York City schools. It evaluated the adequacy of these procedures and surveyed school officials to determine their views about SCA work. The report finds that SCA's procedures for prequalification and requalification of contractors, selection of contractors, procedures for approving subcontractors, and controls over costs were often inadequate. More than a third of schools were dissatisfied with SCA work. The report includes recommendations for each of these areas. (Appendices contain a list of contract amounts, excerpts of the questionnaire sent to school principals, a list of schools that responded to the survey, and a list of major contributors to the report.) (EV)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 466 087

New York City School Construction Authority: Improvements Needed in Construction Contracting.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

[] This document has been reproduced as received from the person or organization originating it.

[] Minor changes have been made to improve reproduction quality.

[] Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

K. Schulman

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

EF 005 270

BEST COPY AVAILABLE

H. CARL McCALL
STATE COMPTROLLER

A.E. SMITH STATE OFFICE BUILDING
ALBANY, NEW YORK 12236

STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

March 27, 1997

Mr. Martin D. Raab
President and Chief Executive Officer
New York City
School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101

Re: Final Report - Improvements Needed In Construction Contracting Practices Report No. 96-N-5

Dear Mr. Raab:

This audit was done according to the State Comptroller's authority as set forth in Article 10, Section 5 of the State Constitution and Article 3, Section 33 of the General Municipal Law. The audit focused on the effectiveness of the School Construction Authority's monitoring of construction work in New York City schools. In this connection, we also determined whether the Authority awarded contracts in accordance with its established procedures. We list major contributors to this report in Appendix D.

Office of the State Comptroller
Division of Management Audit

In an effort to reduce the costs of printing, if you wish your name to be deleted from our mailing list or if your address has changed, contact Raymond W. Cecot at (518) 474-3271 or the Office of the State Comptroller, Alfred E. Smith State Office Building, 13th Floor, Albany, NY 12236.

CONTENTS

		Page
EXECUTIVE SUMMARY		**ES-1**
CHAPTER I.	**INTRODUCTION**	**1**
	Objectives, Scope and Methodology	2
CHAPTER II.	**PREQUALIFICATION AND REQUALIFICATION PROCEDURES**	**5**
	Investigations of Firms that Were Requalified	5
	Investigations of Firms that Received SCA Contracts	6
	Evaluation of Contractors	6
	Prequalification Procedures	7
	Recommendations	7
CHAPTER III.	**SELECTION OF CONTRACTORS**	**9**
	Selection Process for Construction Management Services at West Queens High School	9
	Award of Design Contracts	10
	Bid Envelopes	12
	Recommendations	12
CHAPTER IV.	**PROCEDURES FOR APPROVING SUBCONTRACTORS**	**13**
	Approval of Subcontractors	13
	Checks On Past Performance and VENDEX	14
	Information Processed for Suppliers	14
	Local, Minority and Women Based Enterprise Requirements	14
	Subcontractor Data Base	15
	Recommendations	16
CHAPTER V.	**CONTROLS OVER COSTS**	**18**
	Controls Over Personnel and Salaries	18
	Fees for Construction Management Firms	20
	Change Order Procedures	20
	Support for Change Order Prices	20
	Design Errors and Omissions	21
	Approval of Change Orders	22
	SCA's Financial Management System	22
	Recommendations	22

CHAPTER VI.	**SURVEY OF SCHOOL OFFICIALS CONCERNING THE RESULTS OF SCA WORK**	**25**
	School Officials' Ratings of SCA-Supervised Work	25
	Summary By Category of School Officials' Responses	27
	School Officials' Ratings of Selected Contractors	28
	Recommendations	29
APPENDIX A	**List of Contract Amounts at the Time of Our Review**	**30**
APPENDIX B	**Excerpts of Questionnaire Sent to School Principals**	**31**
APPENDIX C	**List of Schools that Responded to Survey**	**36**
APPENDIX D	**Major Contributors to this Report**	**37**

NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IMPROVEMENTS NEEDED IN CONSTRUCTION CONTRACTING PRACTICES

EXECUTIVE SUMMARY

PURPOSE

The purpose of this audit was to determine whether the School Construction Authority (SCA) followed its required procedures for awarding and monitoring contracts for construction work in New York City schools. We also evaluated the adequacy of these procedures. In addition, we surveyed school officials to ascertain their views about SCA work.

BACKGROUND

SCA was established by the New York State Legislature on November 23, 1988 to improve the conditions of the elementary and secondary schools in New York City that were in a state of disrepair and deterioration.

SCA is governed by a three-member Board of Trustees comprised of the Chancellor of the New York City Board of Education, one member appointed by the Governor and one by the Mayor. SCA staff, 568 as of March 31, 1996, is responsible for the design, construction and modernization of New York City schools. SCA is funded through the Board of Education which has proposed $2.9 billion for SCA's five-year capital plan for the 1995-1999 fiscal years.

Prequalification and Requalification Procedures

SCA sometimes requalified firms, permitted them to compete for contracts, and even awarded them contracts, without performing all of its required reference checks and financial reviews. SCA could not always use past performance as a criterion for requalifying contractors because it frequently did not perform required final contractor evaluations.

Selection of Contractors

SCA did not not adhere to its contract award procedures for three of the eleven contracts we reviewed. SCA awarded a $3.6 million contract to the firm whose proposal was ranked fifth among the seven proposals submitted and awarded two contracts totaling $1.4 million on a sole source basis without appropriate justification as required by its procedures.

Procedures for Approving Subcontractors

SCA did not always enforce its controls over the hiring of subcontractors, and, as a result, did not ensure that subcontractors were qualified or adequately monitored. Almost 50 percent of the subcontractors (53 of 107) we reviewed started construction work without the SCA required approvals. SCA also approved certain subcontractors without performing the required reference checks.

Controls Over Costs

SCA did not always enforce the cost controls included in its contracts and procedures. For example, some firms were reimbursed for salaries that exceeded the contractual amount without the required written approvals. In addition, SCA's contracts and procedures do not ensure that costs are always minimized. For example, a contractor's management fee increased when its payroll costs increased without obtaining required approval from SCA. We also found change order prices are sometimes approved without independent support, and project officers have no specific guidance about how to process claims against contractors for design errors and omissions.

Survey of School Officials Concerning the Results of SCA Work

SCA does not consistently evaluate completed work or measure its customers' satisfaction with completed work. Officials at 33 percent of the new schools and 46 percent of the modernized schools we surveyed indicated that they perceived SCA's work to be less than adequate. Officials at 66 percent of responding schools believed that excessive maintenance or repairs were required to correct conditions resulting from poor construction. SCA was unaware of most of these complaints and awarded additional contracts to firms whose work was considered to be unsatisfactory by the school personnel we surveyed. SCA needs to establish a system that provides for a follow up of completed projects and obtains feedback from its customers about the quality of SCA supervised construction work.

AGENCY RESPONSE AND AUDITOR COMMENTS

A draft report was provided and discussed with SCA officials. Their comments were considered in preparing this final report. SCA officials disagreed with many of our conclusions in the areas of the award of sole source contracts (See Chapter III), and contract costs (See Chapter V). They also strongly objected to our conclusions from the survey of school officials, and our survey methodology (See Chapter VI).

At our closing conference, SCA officials maintained some audit conclusions were based on out dated procedures. In response, we returned to SCA to review a new sample of transactions which occurred subsequent to the change in procedures.

SCA officials maintained that many of the conditions reported by school officials were the results of improper maintenance or other factors unrelated to SCA construction. In their view, the school officials who responded were not qualified to evaluate the construction work nor could they prove that the defects were the result of SCA work. However, SCA chose to explain only three of the 128 conditions we reported. These three conditions had previously been investigated by SCA in response to a report previously issued by a legislative committee. SCA provided us with a response explaining why it believed that SCA was not responsible for these specific conditions. We agreed that two of these explanations were valid and removed the conditions relating to them from our report.

NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IMPROVEMENTS NEEDED IN CONSTRUCTION CONTRACTING PRACTICES

CHAPTER I. INTRODUCTION

On November 23, 1988, the New York State Legislature established the New York City School Construction Authority (SCA) to improve the conditions of the elementary and secondary schools in New York City that were in a state of disrepair and deterioration. The Legislature concluded that the City's Board of Education, which had been responsible for the condition of school facilities, was hampered by "inefficient bureaucratic practices and lengthy review and approval processes."

SCA is governed by a three-member Board of Trustees comprised of the Chancellor of the New York City Board of Education, one member appointed by the Governor and one by the Mayor. SCA staff, 568 as of March 31, 1996, is responsible for the design, construction and modernization of New York City schools. SCA is funded through the Board of Education which has proposed $2.9 billion for SCA's five-year capital plan for the 1995-1999 fiscal years.

SCA contracts with architectural firms to perform the design work on many of its projects. SCA enters into contracts with construction management firms to supervise the work of construction contractors on the projects. Design and construction management contracts are awarded through the Request for Proposal process. Construction contracts are competitively bid. In April 1996, SCA had 44 major construction projects in progress. These projects consisted of new schools, major modernizations, and additions to existing schools, with a projected cost of $1.2 billion. SCA also had 527 smaller capital projects, such as the installation of window guards in schools, funded through lump sum appropriations.

SCA requires construction and construction management firms to be prequalified before they can compete for contracts. Prequalification evaluates the capability and qualifications of potential contractors before invitations for bids are issued. However, architectural and engineering firms must be prequalified before they are awarded contracts. The prequalification reviews are performed by SCA's Contract Administration Unit (CAU) and its Inspector General's Office (IG). SCA requests firms to update their prequalifications every two years by submitting requalification applications.
SCA's procedures require that subcontractors be approved by CAU before they begin work. CAU reviews subcontractors' backgrounds to determine whether they are qualified to perform the work. In addition, SCA's Economic and Employment Opportunities Office is required to ensure that contractors meet the Local, Minority and Women Based Enterprise requirements specified in the contracts when they employ subcontractors.

SCA's on-site project officers are responsible for ensuring that payments to design firms, construction management firms and construction contractors are in accordance with the terms of the contracts.

SCA's Construction Services Unit is responsible for ensuring that the cost of change orders and supplemental agreements are fair and reasonable. Change order work is not supposed to begin until SCA provides the contractors with written authorization. SCA's policy provides that claims for damages against design firms will be considered when their design errors and omissions result in additional project cost exceeding $100,000.

Objectives, Scope and Methodology

The objectives of this audit were to determine if SCA complied with its required procedures in its supervision of construction work in New York City public schools. This included SCA procedures for (1) prequalifying, requalifying, selecting, paying, monitoring, and evaluating contractors and (2) approving subcontractors. We also determined if SCA's required procedures in these areas were adequate. In addition, as part of our review of SCA's processes for evaluating contractors, we obtained school officials' views on the quality of SCA work at their schools.

To review SCA's compliance with its procedures for prequalifying and requalifying contractors, we selected 35 of the 75 firms awarded competitively bid construction-related contracts from October 1, 1995 through October 15, 1996 and 15 of the 30 firms awarded design and construction management contracts from October 1, 1995 through October 18, 1996. We determined whether these firms had been prequalified or, if applicable, requalified by SCA before they were awarded contracts.

For a sample of 25 construction contractors who obtained contracts during 1993 and 1994, we also determined whether SCA had performed required final evaluations for any of their 62 prior projects and used the results in the requalification decision.

To review SCA's compliance with its other contract procedures we conducted a comprehensive review of two major projects in progress at the time of our review: a new school at West Queens High School and an addition/modernization at P.S. 152 in Brooklyn. The schools represent the main types of SCA projects -- new construction and additions/modernizations of existing schools.

West Queens High School was the costliest project underway at the time of our audit, with contracts totaling $77 million. P.S. 152 is an average size project, with contracts totaling $27 million. Appendix A provides more details on these contracts. At the time of our audit, the two school projects involved six contracts (one in each school, for design, construction management, and construction); 107 subcontracts (73 for West Queens and 34 for P.S. 152); 220 payments; and 110 construction change orders. Also, the two projects had different contractors and subcontractors. The contractors used at P.S. 152 were also being used by SCA on 12 other projects that were underway at the time of our review. We supplemented this comprehensive examination of contract processes at the two projects, with an examination of design contracts at five other schools.

- To determine whether SCA complied with its procedures for awarding contracts, we reviewed the solicitation, bidding, and selection processes for the six contracts awarded at the two schools. In addition, we reviewed the selection processes for recent awards of design contracts at five other schools. We also observed operations in the SCA bid room.

- To determine if SCA complied with its procedures for approving subcontractors, we obtained subcontractor information from the prime contractors for all of the 107 subcontractors for the two

schools and examined SCA's CAU files for these firms. The procedures that we tested for these two schools were representative of SCA's subcontractor approval process from 1992 through 1995.

- To determine if payments negotiated for supplemental agreements were justified, we analyzed a sample of 11 of the 27 supplemental agreements in effect at the time of our review. The sample, totaling $6.5 million, consisted of five supplemental agreements for each design firm and the one existing supplemental agreement for the West Queens High School construction management firm.

- To determine if contractors were overpaid, we compared the contractors' payment requests to payment information on the City's accounting system for all 220 payments made for all the contracts at the two schools during our audit test period.

- To determine if contractors were reimbursed for personnel not authorized by the contracts, we reviewed 65 of the 220 payments made during our audit test period to construction management firms. This step was limited to construction management firms because payments for these firms were primarily reimbursements for personal service costs. The payments that we examined were representative of SCA's procedures from August 1992 through August 1995.

- To determine if procedures for change orders were followed, we reviewed documentation and reasonableness of prices for a sample of 20 of the 110 construction change orders at the two schools. For ten of the change orders, we also determined if any work was begun before SCA approved the changes. The procedures that we tested for these two schools were representative of SCA's change order approval process from 1993 through 1995.

- To determine the extent to which change orders were caused by design errors, we reviewed the construction management firms' change order logs. We also requested the project officers to provide us with documentation showing SCA's efforts to obtain restitution for the consequences of design errors.

To ascertain the views of school officials about the SCA work performed at their schools, we sent questionnaires to the principals of 70 schools where SCA had completed projects between October 1990 and October 1994. We asked the officials specific questions about the SCA supervised work completed at their schools. (See Appendix B for a copy of the questions used in the report and the tabulated responses.) We received responses from 38 school officials, and made follow-up visits and telephone calls to 25 schools to verify that the conditions reported by the officials existed. Our follow-up calls and visits were also used to identify and eliminate complaints regarding problems that were not related to SCA supervised work. This was mainly necessary at modernized schools where SCA was only involved with work on certain portions of the structure. The 38 responding schools included 12 new schools and 26 schools that were modernized.

During our visits to the schools we interviewed principals and custodians, and observed the conditions they reported in their responses to our questionnaire. In every case we found that the reported conditions in fact existed, although we could not independently verify that the reported conditions were caused by SCA construction work. We offered SCA an opportunity to provide documentation to show that the reported defects were caused by other factors, such as improper maintenance by school personnel. Our findings are presented in Chapter VI of this report.

At our closing conference, SCA officials maintained some audit conclusions were based on out dated procedures. In response, we returned to SCA to review a new sample of transactions which occurred subsequent to the change in procedures.

We conducted our audit in accordance with generally accepted government auditing standards.

CHAPTER II. PREQUALIFICATION AND REQUALIFICATION PROCEDURES

SCA did not always follow its requirement to investigate firms before approving their requalification applications. We found that SCA awarded contracts to seven firms without performing all of its required reference checks and financial reviews. In addition, SCA did not always use prior performance on SCA projects as a criterion for decisions to requalify firms or award them contracts because it frequently did not perform required final contractor evaluations.

The prequalification process permits SCA to investigate potential contractors without delaying the contract award process. The prequalification process is performed by SCA's Contract Administration Unit (CAU) and its Inspector General's Office (IG). The CAU review includes checks of VENDEX[1] reports, past references, and financial data including Dun & Bradstreet reports. Before CAU prequalifies firms, the IG also performs integrity checks of firms which include reviews of VENDEX, credit histories, and the IG's database of investigative and confidential reports.

Initially, firms submit detailed prequalification applications to SCA. The applications include information about the firm's organization, financial data and performance history. The applicant is also instructed to attach copies of financial statements, resumes and licenses. SCA requests firms to update the information on the prequalification every two years by submitting a requalification application. The completed requalification forms are sent to CAU which repeats its review of contractors' information and sends the forms to SCA's IG. The IG reviews the requalification form and perform its integrity check when the firm is being considered for a contract and may review the forms any time that concerns arise about a firm.

Investigations of Firms that Were Requalified

We examined both the prequalification and requalification processes. We selected 50 of the 105 firms with whom SCA had executed construction-related contracts between October 1995 and October 1996. The CAU did not always follow SCA's requirement to investigate firms before approving their requalification applications. Therefore, there was a risk that unqualified firms would be included on the lists and allowed to obtain contracts. We found the following 11 deficiencies relating to SCA's approval for the 50 sampled firms:

- References and prior experience were not checked for six firms.
- Required financial reviews, such as current ratio analysis, were not performed for two firms.
- Three firms were approved although their files contained no copies of their professional licenses or contained only copies of expired licenses.

Investigation of Firms that Received SCA Contracts

---

[1] VENDEX is an automated system that City agencies use when making decisions about the award of contracts. The system contains background, performance, caution, bid and contract information on businesses that contract with the City.

Our review showed that SCA awarded 11 contracts totaling $42.8 million to seven firms without performing the required reference checks and/or financial reviews before these contracts were awarded. For example, SCA awarded a $33 million construction management contract to one firm on June 28, 1996 without performing a required financial review. Instead, CAU had to rely on a prior financial review done in March 1991. Awarding contracts to firms where SCA has not performed the required reference checks and/or financial reviews could result in SCA awarding contracts to unqualified and/or financially at-risk firms.

Evaluation of Contractors

The legislation that established SCA states, "The authority shall delete from the list of pre-qualified bidders any bidder who has failed to perform adequately or satisfactorily for the authority . . ." SCA has established detailed procedures regarding the revocation of a firm's prequalification status. Under these procedures, "Contractors receiving unsatisfactory final evaluations from SCA at the completion of a project may have their prequalifications revoked for up to five years."

Final evaluations rate the contractor's performance on a scale of Unsatisfactory through Excellent in 41 categories, such as, "Quality of contractor's work." We reviewed files for 25 sampled firms that were awarded contracts in 1993 and 1994 and found that SCA did not perform all required final evaluations for 13 firms. Specifically, SCA did not perform final evaluations for 58 of the 62 projects these firms completed. As a result, SCA did not have the information necessary to consider initiating any proceedings against the 13 contractors.

While reviewing CAU's files for the 25 firms, we noted one instance where SCA did not take any action upon a recommendation from SCA field staff to remove a poor performing firm from the prequalified list. A project officer's evaluation form dated August 29, 1994 gave a construction firm a marginal rating for work at an elementary school in Brooklyn. The evaluation stated, "TAKE THIS CONTRACTOR OFF THE BID LIST." This recommendation was not acted on since the firm remained prequalified at least through July 1995. There was no evidence in the files as to SCA's response. About a year later, SCA notified the firm that it was removed from the prequalified list for misstating information on its requalification application.

SCA's failure to evaluate completed contracts had been noted previously in an October 1994 report issued by the independent CPA firm engaged by SCA to audit its annual financial statements. The report stated that, ". . . performance evaluations had not been completed documenting the dissatisfaction with the performance of the general contractors." In addition, the report stated that, " . . . there is insufficient linkage between the evaluation system and the procurement of future contracts." The report recommended, ". . . that SCA reassess its current contractor performance evaluation system to ensure its utility."

Prequalification Procedures

We used SCA's current procedures as verbally described by Contract Administration officials as the criteria for reviewing the prequalification/requalification process. We found that the procedures described to us were not always consistent with SCA's written procedures. For example, SCA officials advised us that firms are prequalifed once, and that there are no set dates when this status expires. However, SCA's

Manual of Policy and Procedures (current as of October 1996) states, "Once prequalified, the applicant's prequalification status shall remain in effect for a period of two years from date of approval. . ."

SCA does not require architectural and engineering firms to be prequalified when they submit proposals for SCA contracts. Instead, these firms must be prequalified prior to the contract award date. This policy does not allow SCA to evaluate the capability and qualifications of potential contractors before invitations for bids or requests for proposals are issued for specific contracts.

Recommendations

The New York City School Construction Authority should:

1. Ensure that the required reference and financial checks are completed before approving firms for requalification or contract award.

In response to our draft report, SCA officials indicated that CAU and the Office of the Inspector General perform numerous checks to prequalify and requalify firms. Consequently, SCA believes that its decisions to requalify or award contracts to firms were sound. However, we believe that required financial reviews and reference checks are necessary components of a complete contractor investigation.

2. Ensure that final contractor evaluation forms are prepared as required.

SCA responded that it has designed and implemented a new computer program to track contractor performance evaluations.

3. Revise its written prequalification procedures to reflect current practices.

In response to our draft report, SCA agreed to, ". . . review its prequalification and requalification procedures to ensure clarity and consistency with current practice."

4. Require that architectural and engineering firms be prequalified before submitting proposals for SCA contracts.

SCA indicated that, "It is essential to the SCA's ability to attract the greatest number of quality firms to delay the prequalification process until time of contract." However, we believe that this defeats the principal benefit of prequalification which is intended to permit an agency to evaluate the capability and qualifications of potential contractors before invitations for bids or requests for proposals are issued for specific contracts.

CHAPTER III. SELECTION OF CONTRACTORS

SCA did not always adhere to its contract award procedures. For three of 11 contracts we reviewed, we found that SCA awarded (1) a $3.6 million contract to a firm whose proposal was ranked fifth among the seven proposals submitted, (2) a $675,000 contract on a sole source basis without providing required justification, and (3) another sole source contract for $765,000 (subsequently, this firm received $4.9 million in negotiated agreements) with justification we found questionable.

SCA's procedures require that the Request for Proposal (RFP) method be used to award contracts for design and construction management services. The procedures require that SCA utilize a committee to select a number of firms from the prequalified list based on the specific characteristics of the work to be performed. RFPs are mailed to these firms. After evaluating the proposals and other relevant information, the selection committee selects the most appropriate firm based on the specific characteristics of the work to be performed.

Selection Process for Construction Management Services at West Queens High School

SCA violated its contract award procedures when it awarded a $3.6 million contract to the firm whose proposal ranked fifth among the seven proposals received for construction management services at West Queens High School. For each of the seven proposals received, the selection committee arrived at an initial score called a "rank total." The committee determined that the firm with the best ranking was the most appropriate for the contract. The following table shows the selection committee's rankings.

TABLE 1

SELECTION COMMITTEE'S RANKING OF FIRMS

Firm	Ranking
A	1
B	2
C	3
D	4
E	5
F	6
G	7

SCA's Manual of Policies and Procedures states that, " . . . the selection committee may choose to conduct oral interviews for the top three firms." The selection committee interviewed only officials from Firms A, E and F. SCA did not document why it bypassed firms B, C and D.

SCA's procedures do not instruct the selection committee to re-rank the firms based on the results of the interviews. After the oral interviews, Firm A was recommended by the committee. When Firm A subsequently withdrew its proposal, a June 4, 1992 memorandum from the Director of Contract Administration to the SCA President stated that SCA's Vice President of Operations advised the selection committee to choose between Firm E (ranked fifth) and Firm F (ranked sixth), the firms that had been invited to be interviewed. Again, SCA did not document the basis for bypassing three more highly ranked firms.

SCA officials agreed that the award of the contract to Firm E violated its contract award procedures. At our request, SCA officials discussed the matter with the SCA Inspector General who concluded that an investigation was not warranted. The Inspector General said that the SCA employees involved were no longer working at SCA, he had not found a pattern of similar cases, and that SCA's contract award procedures have been changed.

Award of Design Contracts

SCA awarded one of the two design contracts we initially reviewed on a sole source basis. The justification for this sole source award at West Queens High School was questionable. Consequently, we selected five additional design contracts to review and found one award which did not comply with SCA's contract award procedures.

SCA's procedures require a project officer to prepare a memorandum to justify a sole source contract award. The memorandum should demonstrate that at least one of the following conditions occurred:

Criteria 1: The service is only available from a single source.

Criteria 2: The contract is for $10,000 or less.

Criteria 3: Using a sole source, "will provide the Authority with a lower cost or shorter period of time because this firm was previously utilized on that project or a similar project and they have special knowledge or compatibility."

In June 1990, SCA awarded a $765,000 contract for West Queens High School to a design firm on a sole source basis. In two memoranda, dated February 8 and February 20, 1990, SCA explained that in October 1988, before the creation of SCA, the firm had been selected competitively by the City, "to master plan and design" the West Queens High School as well as elderly housing, child care and commercial facilities in the immediate area. According to the February 8, 1990 memo, the firm had completed the master plan and was working on the Environmental Impact Statement.

SCA justified the selection of the firm on grounds that the situation was unique -- the high school was to be a harmonious, coordinated part of a larger development and this could be best achieved by selecting the same firm to design the high school as would be used for the entire site. SCA also maintained that the firm had developed the master plan and was familiar with the site and also had done an excellent job on previous school construction projects. The SCA President approved the selection but wrote, "O.K. on this one - but there are many superb design firms in the city -- Lets be good stewards!" Another SCA official, in an internal memorandum, expressed his concern about potential criticism of the large amount of SCA work going to this one firm.

The unique aspects of the high school project were not actually implemented. An SCA official told us that subsequently, the master plan was scaled back. More important, SCA's memoranda justifying the sole source selection did not maintain or document that the firm's familiarity with the site would thereby provide SCA with a lower cost or shorter period for completion. The February 8, 1990 memo stated only that the firm's previous history "may result in lower design costs." The memo also stated that the firm could complete the design documents for the school in 15 months without indicating whether this was a shorter than average time.

SCA said, more specifically, that it selected the firm because it had already completed the schematic designs for the school. However, SCA's February 8, 1990 memorandum stated that the firm's previous contract with the City did not involve a design contract. Moreover, the design contract SCA eventually negotiated with the firm included the preparation of preschematic reports and schematic/preliminary design documents.

The lack of clear justification for the sole source award is particularly significant in this case because the $765,000 contract was only for Phase I of the design work. As shown in Appendix A, SCA later negotiated supplemental agreements with the firm, totaling $4,910,352, at the time of our review.

We also reviewed the selection process for five more recently awarded design contracts and found that SCA awarded one of them on a sole source basis. A firm was chosen to design an elementary school, after a previously selected firm was deemed unsatisfactory by SCA. A memo from an SCA chief project officer stated that this $675,000 contract would be awarded on a sole source basis, but did not supply any justification for the non-competitive award. The memorandum did not state that the firm selected was the only one that could provide the service, or that the firm had special knowledge that would provide SCA with a lower cost or shorter period of time. The memorandum merely stated that this firm was hired, ". . . to support [another firm] in their first effort with the SCA." The memorandum did not attempt to demonstrate that this sole source award was made in accordance with SCA's criteria.

Bid Envelopes

SCA's procedures for the bidding process require that employees stamp sealed bid packages with the time and date of receipt. This procedure is intended to ensure that bids are not accepted after the published bid opening time. There were nine bidders for the West Queens High School project and seven bidders for the P.S. 152 project. We could not verify that the winning bids at the two sampled schools were received prior to the expiration of the bidding deadlines because these bid envelopes were not in SCA's files. We brought this matter to the attention of SCA officials, who were still unable to locate these two envelopes.

In addition, our review revealed that the time-and-date stamps on four of the eight envelopes from the unsuccessful bidders at West Queens High School were illegible. In addition, the envelopes for four of the six unsuccessful contractors at P.S. 152 had no time-and-date-stamps.

SCA officials indicated that, prior to receiving our report, SCA enhanced its procedures to ensure that no bids received after the bid opening deadline are accepted. It has eliminated the requirement to retain bid envelopes and added time-and-date information to its Bid Receipt Log. The log requires the signatures of the persons submitting and receiving the bids, and will be maintained in SCA's files. In addition, a bid opening official will serve as a witness to the recording of the bid receipt date and time.

Recommendations

The New York City School Construction Authority should:

5. Revise its request for proposal procedures to enhance the objectivity of the selection process.

SCA's response to our draft report indicated that it, "has revised and tightened its procedure for the consultant selection process over time and we believe that the current procedures protect the integrity of the selection process to the greatest extent possible."

We do not agree that SCA's current procedures adequately ensure the objectivity of the selection process. SCA officials advised us that in December 1995 the requirement that SCA may conduct interviews with the three top rated firms has been replaced with the requirement that, "the selection committee may request oral presentations from selected firms. . ." SCA stated that this allows a greater degree of discretion in the interviewing process based on committee members professional judgement and experience. However, we believe that this revision to the procedures reduces the importance of the selection committee's objective rankings and may allow the potential selection of low-ranked less qualified firms.

6. Comply with its criteria for sole source contract awards.

CHAPTER IV. PROCEDURES FOR APPROVING SUBCONTRACTORS

SCA did not always enforce its controls over the hiring of subcontractors and, as a result, did not always ensure that subcontractors were qualified or adequately monitored. Of the 107 subcontractors we reviewed, 53 were allowed to begin work without the required SCA prior approval. In some of these cases, SCA was not even aware that the subcontractors were working on the projects. SCA's independent auditors reported this same lack of enforcement and recommended improvements in subcontractor approval procedures in 1993 and 1994. In addition, SCA frequently did not perform required reference checks on subcontractors.

Firms interested in obtaining subcontract work valued under $500,000 must provide SCA with completed questionnaires containing information about the subcontractor firms. SCA reviews the information and approves qualified firms for two years. Since late 1992, subcontractors with work valued at over $500,000 are subject to SCA's prequalification process which requires more detailed information than the subcontractor questionnaire.

In accordance with SCA's procedures, a prime contractor who wants to use a specific subcontractor must complete a subcontractor approval form and submit it to SCA. The form contains information on the estimated cost of the subcontract and the planned dates of the work.

Approval of Subcontractors

According to SCA's procedures, subcontractors must be approved before they begin work. The prime contractors at West Queens High School and P.S. 152 provided us with lists of their 107 subcontractors. We compared these lists with information maintained by SCA and the construction management firms. We found that SCA permitted 53 subcontractors to start work on the projects even though they did not have the required SCA prior approval. The following information describes the ultimate action taken by SCA for these 53 firms.

- SCA approved 26 subcontractors up to 18 months after they began work.
- 18 subcontractors never received approval. SCA did not know that the firms were working on these projects because the prime contractors did not submit the required approval forms. Construction management firms were unaware of nine subcontractor firms, which pursuant to their contracts with SCA, they were required to monitor.
- SCA disapproved eight firms after they began work. The disapprovals occurred up to a year after the firms began work.
- A firm began work on the project in December 1994 although Contract Administration had disapproved the firm in October 1994 because the questionnaire the firm was required to file was incomplete.

SCA's subcontractor approval process includes checks of the subcontractors' past performance and VENDEX information. When SCA permitted subcontractors to work prior to approval, it did not have adequate assurance that the subcontractors were qualified to perform the work.

Previous reports, prepared in 1993 and 1994 by SCA's independent CPA firm engaged by SCA to audit its annual financial statements, also noted that subcontractors began work without prior approval and recommended that SCA improve subcontractor approval procedures. SCA's response to the 1994 report stated that the implementation of a new procedure would prevent the processing of subcontractor insurance applications unless the firms were approved to work.

The SCA construction contracts we reviewed stated that, "The Authority reserves the right of approval and acceptance of the use of any subcontractors that the Contractor uses on the Project." This language does not make it clear that prior SCA approval is needed. SCA should clarify the provision so that it is unequivocally clear that prior approval is required.

Checks on Past Performance and VENDEX

Since January 1994, SCA's procedures have required that CAU check the references of subcontractors. CAU's files did not contain documentation indicating that reference checks had been performed for 8 of the 24 subcontractors we reviewed who were approved after the new procedure went into effect. CAU also approved two subcontractors prior to performing VENDEX checks. CAU officials should not have signed the subcontractor approval forms unless all reviews had been completed.

Information Processed for Suppliers

Unlike subcontractors who work at the construction sites, suppliers or vendors who drop off materials at the sites, without performing installation work, do not need prior SCA approval. However, the prime contractors we reviewed had submitted subcontractor approval forms for such suppliers. As a result, Contract Administration entered data onto the computer system from approval forms for suppliers as well as subcontractors, and generated lists that overstated the number of subcontractors working on the two projects so that management does not have reliable information on subcontractors working on the jobs. SCA needs to remind contractors that approval forms should not be submitted for suppliers who do not perform installation work.

Local, Minority and Women Based Enterprise Requirements

SCA's Economic and Employment Opportunities Office (EEO) is responsible for ensuring that contractors comply with the provisions in their contracts concerning the use of Locally Based Enterprises (LBEs) and Minority/Women Based Enterprises (M/WBEs).

The construction contracts we reviewed required the contractors to subcontract ten percent of the work to LBEs. The West Queens High School contract stated that the contractor must award work, to M/WBEs to, "the greatest extent feasible," which an SCA EEO official defined as 20 percent. The P.S. 152 contract required that the contractor make a good faith effort to award 20 percent of the work to M/WBE suppliers and subcontractors.

As of May 1995, the prime construction contractor for West Queens High School did not meet these requirements. There were no LBE subcontractors and only seven percent of the work was subcontracted to M/WBEs. Since EEO did not check the certifications of firms until after they had been approved to work, it would be difficult for EEO to ensure compliance with L/M/WBE requirements. In addition, EEO

accepted a firm who performed a significant portion of the project work while its L/M/WBE approval was still pending. (Ultimately, SCA did not approve this firm.)

As of April 1996, the contractor for P.S. 152 had not met the LBE requirement, since five percent of the work, instead of the required ten percent, was subcontracted to LBEs. However, since this project was not scheduled to be completed until after the end of our fieldwork, the prime contractor still had an opportunity to meet the goal.

Subcontractor Data Base

SCA's subcontractor data base, which summarizes information shown on the subcontractor approval forms, contained erroneous information. We compared the information on the data base with that shown on the 121[2] subcontractor approval forms, that were submitted to SCA at the time of our review. We identified 25 instances where the computer system did not accurately reflect the information on the approval forms or omitted data from the forms. Reliance on this information could cause SCA to make improper decisions regarding the approval of subcontractors. The following table shows the discrepancies.

---

[2] Although there were only 107 subcontractors on the projects, Contract Administration entered data onto the computer system from approval forms for suppliers as well as subcontractors.

TABLE 2

DISCREPANCIES BETWEEN THE SUBCONTRACTOR DATA BASE AND SUBCONTRACTOR APPROVAL FORMS

Number of Discrepancies	Description of Problem
13	The Local/Minority/Women/Based Enterprise status per the computer system was different from the status shown on the approval forms
6	The estimated value of the work per the computer system was different from the estimated value shown on the approval forms
4	Information about subcontractors was entered on the computer system but there was no corresponding approval forms
2	Approval form was not entered on the computer system
25	

Recommendations

The New York City School Construction Authority should:

7. Ensure compliance with required procedures for prior approval of subcontractors, including the completion of all required reference checks.

In response to our draft report, SCA indicated that it has implemented a new procedure to reduce the probability that a subcontractor can work on a job site without prior approval. SCA officials also agreed, ". . . with the need to do a more diligent job at ensuring that reference and Vendex checks are performed and documented prior to approving subcontractors."

8. Revise the language in construction contract specifications to clearly indicate that subcontractors must be approved before they begin work.

In its response, SCA stated that it, ". . . will review the applicable contract language to determine whether clarification is necessary in order to diminish ambiguity . . ."

9. Verify the Local, Minority and Women Based Enterprise certifications of firms before they begin work and ensure that contractors comply with the contract requirements.

SCA advised us that contractors are no longer allowed to select subcontractors with pending certifications to meet their EEO goals. It also indicated that the agency had an exemplary overall minority participation rate, calculated as a percentage of all contracting work. The response stated that, "In FY'93, the SCA contracted out 23.7 percent of its contracting dollars to M/W/LBE firms; in FY'94 the percentage was 24.4 percent, in FY'95, 35.1 percent; and in FY'96, 36.2 percent."

10. Correct the inaccuracies in its subcontractor data base and remind prime contractors that it not necessary to submit subcontractor approval forms for suppliers that do not perform installation work.

In response to our draft report, SCA indicated that it has modified its procedures and emphasized the need to reduce data input errors. In addition, at our audit exit conference, SCA officials indicated that they investigate all suppliers whose names are submitted by the prime contractors since there are many occasions where the supplier is also the installer. All of the suppliers that we identify in our report were categorized by prime contractors as suppliers who did not perform installation work. Consequently we continue to believe that SCA should educate prime contractors that it is not necessary to submit such suppliers' names for approval.

CHAPTER V. CONTROLS OVER COSTS

SCA did not always enforce the cost controls included in its contracts and procedures. Without obtaining required written approvals, it reimbursed firms for staff and salaries exceeding contract specifications. In addition, SCA contracts and procedures do not always ensure that costs are minimized. Contracts authorize increases in management fees when contractors payroll costs rise. Procedures authorize approval of change orders without independent support for prices, and do not provide specific guidance for pursuing claims against contractors for design errors and omissions.

We reviewed construction management contracts, supplemental agreements and change orders and SCA's financial accounting system in order to evaluate SCA's controls in these areas. We found control weakness as described in the following sections of this chapter.

Controls Over Personnel and Salaries

SCA contracted with construction management firms to supervise the construction work on the two projects we reviewed. The initial contracts, which totaled $5,217,000, stipulated that SCA would reimburse the construction management firms for personnel delineated in the exhibits of the contracts.

SCA's Project Management Bulletin No. 92-20, dated June 9, 1992, states that, "Verification of CM [Construction Management] payment requisitions requires a review of the contract to ensure billings are made in accordance with the contract." Specifically, the Bulletin requires that the following be done before approving contractor payment requisitions:

- Verify that hourly rates billed do not exceed hourly rates shown in the contract.

- Ensure that man-hours billed are against titles included in the contract. If technical support is needed from titles not included in the contract, a supplemental agreement must be prepared.

In addition, SCA's procedures regarding construction management contracts (Project Management Bulletin No. 93-01 dated September 2, 1992) provides that, "Revisions to the titles and maximum annual compensation for a title may be made with the prior written approval of the Senior Director of Project Management."

For both construction management contracts we reviewed, SCA reimbursed the construction management firms for staffing costs that were not included in the contracts without obtaining required prior written approval. SCA reimbursed the construction management firms for a total of 22 employees that were not included in the contracts. In addition, SCA paid for the salaries of seven employees of the construction management firms at rates that exceeded the agreed upon contractual amounts. We also found that SCA paid the salaries of three employees for a longer period than was specified in the contracts. These unauthorized payments totaled $312,650, or six percent of the two initial contract amounts.

Following are examples of payments made by SCA that we noted for the two sampled schools, that were not in accordance with the construction management contracts:

- one construction management contract included a second resident engineer who was supposed to be paid $29,325 over a three-month period. Over a 31-month period, SCA reimbursed the

construction management firm $100,838 for this position, although it never formally approved an extension beyond the three-month period provided in the contract.

- SCA reimbursed one construction management firm for a project manager based on an annual salary of $90,770 although the contract provided for reimbursement at a rate of $68,000 per year. This resulted in an overpayment of $19,881 during the period from September 1994 through July 1995.

The need for increased construction management staff at the projects was contradicted by evaluations prepared by SCA's Quality Assurance Group[3]. The evaluations for both projects indicated that construction management staffing was more than adequate. The West Queens High School construction management contract provided for eight field personnel during the construction phase. An April 11, 1994 Quality Assurance report for this project stated that, "Staffing of eleven (11) individuals is more than necessary for coverage of work in progress and should be reduced." In spite of this report, a November 29, 1994 memorandum prepared by SCA's project officer for this school justified additional payments by stating that, "The contract staffing level was insufficient to properly and effectively manage this project." Because SCA's procedures state that the Senior Director of Project Management is responsible for approving staffing changes, we believe that this official should have reviewed these contradictory assessments and made a written determination of the optimum staffing for this project.

The P.S. 152 construction management contract provided for three full-time field personnel and two part-time personnel during the construction phase. All five Quality Assurance reports for P.S. 152, dated from November 1994 through June 1995, stated that staffing was considered to be more than adequate for coverage of work in progress. The November 1994 and January 1995 reports showed that five employees were at the site, while the March, April and June 1995 reports listed six employees.

SCA responded that, "Recommendations from Quality Assurance are advisory, and serve the purpose of presenting options. Ultimately, it falls to Project Management to assess available options and decide on a course of action." Nevertheless, based on Quality Assurance, previous CPA reports, and our findings, SCA should address its system for enforcing the cost controls included in its contracts.

In addition, our review of audits done by CPA firms engaged by SCA's internal audit unit to perform contract audits, revealed that SCA had made payments that were not authorized by construction management contracts on several projects since 1989. The reports said that SCA paid noncontractual personnel and also paid at hourly rates above those authorized in the contracts.

Fees for Construction Management Firms

In accordance with its mission statement, SCA's Construction Services Unit should negotiate construction management contracts at a fair and reasonable price. SCA negotiated a fixed construction management fee of $588,000 for the construction phase for West Queens High School. However, this fee did not remain fixed because SCA increased the fee as the firm's payroll costs increased. Two supplemental agreements raised the "fixed" fee for the construction phase from $588,000 to $821,800. These supplemental

---

[3] The SCA Quality Assurance Group performs evaluations "at the site by comparing construction with the contract documents and their referenced quality standards and codes."

agreements were in part necessitated because the project officer permitted unauthorized personnel to work on the project and allowed compensation in excess of contract limits as described in the aforementioned section.

- Supplemental Agreement No. 1 reimbursed the construction management firm for additional payroll costs including a fee increase of $125,000.

- Supplemental Agreement No. 2 included an increase in the fee estimated at $108,800. Most of this fee was to be calculated as a percentage of payroll costs.

We believe that linking fees to payroll costs is inefficient for SCA because it encourages the firm to maximize its staffing level. In effect, the more people they add to the project, the more they get paid.

Change Order Procedures

Change orders are modifications to construction contracts, which include changes in design specifications, the method or manner of performance, and length of the performance period. As of January 26, 1995, there were 78 executed change orders for West Queens High School. Seventy-seven included additional costs totaling $5,126,839, while one was a credit of $747,198. As of June 29, 1995, there were 32 executed change orders totaling $920,905 for P.S. 152, which was about 60 percent completed.

Support for Change Order Prices

SCA's procedures state that the support for negotiated change order amounts ". . . may be in the form of a marked-up Contractor's estimate . . . or an independent estimate." We selected a sample of 20 change orders (10 from each school) from the 110 change orders (78 from West Queens High School and 32 from P.S. 152) that were approved at the time of our review. We found that the files for 17 change orders, totaling $3,201,167, contained contractors' estimates with figures on the estimates crossed out and changed. There was no indication who made the revisions to the contractors' proposals. Marked-up contractors' estimates were permitted by SCA procedures. However, we believe these procedures were inadequate because marked-up contractors' estimates do not demonstrate that steps were taken to establish the fact that the prices paid by SCA were competitive.

SCA informed us that its change order unit consists of experienced estimators, and it maintains a reference library of cost handbooks, obtains telephone quotes from suppliers for material costs, and prepares updated guides for wage rates. However, the files for the 17 change orders we reviewed did not contain any cost estimates from these or any other reference sources.

We then attempted to determine the reasonableness of the negotiated change order prices by comparing them with the contractors' actual costs. However, SCA did not have complete cost data for any of the sampled negotiated change orders and could not provide us with complete cost data for any of the eight change orders we requested although contractors are contractually obligated to provide SCA with, ". . . satisfactory invoices, payrolls and vouchers covering all items of cost relating to the Extra Work." These documents are needed to determine costs incurred by the contractors. Without adequate support for negotiated change order prices, there is a risk that SCA overpaid the contractors for change order work.

Design Errors and Omissions

SCA's procedures state that SCA, ". . . will pursue a policy, and procedure that attempt to monitor and record change orders caused by errors and omissions, and resolve excessively costly change orders through an objective claim by claim evaluation." The project officer will make an initial recommendation to file an error and/or omission claim. A claim will be considered when total error and/or omission change orders exceed $100,000 for one consultant.

We examined the construction management firm's records for the P.S. 152 project and noted that as of September 13, 1995, 23 change orders, totaling $736,163 were needed because of design errors and/or omissions. These records also included an additional 36 anticipated change orders totaling $461,418 that would be needed because of design errors and/or omissions. The project officer told us that he would wait until the end of the contract to obtain restitution because he wanted to avoid straining SCA's relationship with the design firm during the construction phase.

In its response, SCA claimed that the project officer complied with SCA's procedures by considering the filing of a claim, however, SCA did not provide us with any written documentation indicating the reason for not filing a claim. We believe that SCA's current procedures are inadequate because they do not ensure that project officers carefully evaluate the merits of filing claims.

We also noted that as of March 30, 1995, the West Queens High School construction project had 47 change orders totaling $2,032,241 resulting from design errors and/or omissions. The project officer at this project did not recommend filing an error and/or omission claim for these costs. He indicated that the design firm should not be held responsible because the design was not complete when SCA bid the construction contract. He advised us that SCA rushed to bid the contract on June 16, 1992, before the end of the fiscal year.

The October 1994 report prepared by the independent CPA firm engaged by SCA to audit its annual financial statements, also noted that construction contracts were bid prior to the design being completed and recommended that SCA work with the Board of Education and the Office of Management and Budget to alleviate this problem.

Approval of Change Orders

We reviewed ten of the 20 sampled change orders (five from each school) and found that contractors performed work on six change orders (two for West Queens High School and four for P.S. 152) totaling $1,165,589 before SCA's required written approval was granted. When the scope of the work to be performed is not committed to writing, there is a higher risk that legal disputes and contractor claims for damages can arise.

SCA's Financial Management System

Some information in SCA's computerized Financial Management System (FMS) was inaccurate. FMS is the primary financial accounting system used by SCA and contains information about the payments made to contractors. This system is used to track and monitor payments to contractors. Errors in this system can cause SCA management to make decisions based on inaccurate information.

We reviewed the FMS data for 124 payments for West Queens High School and 84 payments for P.S. 152. For each payment we compared the FMS data to the manual Requests for Payments and information on

New York City's Integrated Financial Management System (IFMS). Our review found the following errors that demonstrate that there are control weaknesses in FMS:

- Seven duplicate entries totaling $6,730,426 overstated payments to four firms.

- FMS showed that SCA had not retained any funds from six payments to a prime contractor, while the actual retainage totaled $640,899. (The contract required that SCA retain five percent of the amount of each payment estimate to ensure satisfactory performance.)

We reviewed IFMS records for all duplicate entries and found that although duplicate payments were shown on SCA's system, the firms were actually only paid once.

Recommendations

The New York City School Construction Authority should:

11. Ensure that construction management firms obtain prior written SCA approval for increases in personnel.

SCA responded that, "Staffing levels were determined to be insufficient to properly maintain the projects in the professional opinions of the project managers, and the decision to increase staffing was within their authority, as the individual assigned with first-line responsibility for managing construction projects." They maintained that the project managers orally approved the staff increases. However, SCA did not provide us with any procedures showing that decisions to increase staffing were within the project officers' authority. Therefore, SCA should have ensured that additional expenditures be thoroughly justified and pre-approved by the Senior Director, as required.

12. Discontinue the practice of awarding construction management contracts wherein the fee is based on a percentage of the company's payroll costs. Future contracts should provide for fixed fees or fees that provide incentives for the company to minimize its costs.

In response to our draft report, SCA indicated that it, ". . . recognizes the need for minimizing construction management costs and has taken the following steps:

- Enforced stricter adherence to conditions stipulated in the CM contract.

- Provided incentives (bonus clauses) in the construction contracts as an incentive to the construction contractor to complete the work early.

- Begun to manage some of its projects directly, i.e., without the use of Construction Managers."

13. Change its procedures to require independent cost estimates for change orders and actual cost information to evaluate the reasonableness of the negotiated prices.

In response to the draft report, SCA indicated that its procedures specify that a marked-up copy of the contractor's proposal is acceptable documentation of change order costs. SCA indicated that its staff

consists of experienced estimators and that the preparation of any documentation beyond the requirements stated in its procedures would be impractical. While we recognize that SCA is complying with its procedures for documenting change order costs, we believe that its current procedures do not provide adequate assurance that change order prices are fair and reasonable. SCA should modify its procedures to require that marked-up proposals clearly document that its staff has established that the prices paid by SCA were competitive. Alternatively, it could establish satisfactory controls by preparing independent cost estimates and obtaining as required, actual cost information from contractors.

14. Ensure that project officers obtain proper approvals when work must begin before change order prices can be negotiated.

SCA indicated that, "Since the contractor is performing the work prior to the execution of a signed change order, the contractor would assume any financial risk should the change order not be approved. Our procedures are being updated to reflect this business practice which is common within the construction industry."

However, we believe that when the scope of the work to be performed is not committed to writing, the specifications for the work may be unclear, increasing the risk of construction errors.

15. Develop specific guidelines for determining when claims for design errors and omissions should be pursued.

In its response, SCA claimed that the project officer complied with SCA's procedures by considering the filing of a claim. We continue to believe that SCA should establish guidelines specifying the circumstances where project officers should be required to document the reasons
why claims were not filed.

16. Develop a mechanism with the Board of Education to ensure that the practice of bidding construction contracts before the project's design is complete is minimized.

In response to our findings, SCA agreed that it is preferable to avoid rushing contracts but indicated that sometimes this situation cannot be avoided, since SCA must operate within constraints imposed by the Board of Education and the Office of Management and Budget.

17. Ensure that there are sufficient edits and controls over information entered into the Financial Management System.

SCA's response indicated that modifications have been made to correct the weaknesses in its computerized Financial Management System.

CHAPTER VI. SURVEY OF SCHOOL OFFICIALS CONCERNING THE RESULTS OF SCA WORK

SCA did not survey school officials to measure their satisfaction with its work. Officials at thirty-three percent of the new schools we surveyed and forty-six percent of the surveyed modernized schools, perceived that the quality of SCA's work was less than adequate. According to 66 percent of the respondents, excessive maintenance or repairs were required to correct conditions resulting from poor construction. SCA was unaware of most of these complaints and awarded additional contracts to firms whose work was considered unsatisfactory by the school personnel we surveyed.

In order to ascertain the views of school officials, we sent questionnaires in May 1995 to the principals of 70 schools where SCA had completed projects between October 1990 and October 1994. The 70 SCA completed projects consisted of 26 new schools and 44 modernizations of existing schools. In our questionnaire, we requested the principals to comment on their satisfaction with the construction work supervised by SCA. While the complaints they identify may not always be attributable to work done by SCA, if the principals perceive the SCA work is the cause of the problem, that becomes the principals' reality. It is important for SCA to react to these perceptions so principals do not believe SCA's work is less than satisfactory. We received responses from school officials at 38 schools and followed up with visits or calls to 25 of them[4]. If it was unclear whether the officials' complaints concerned work supervised by SCA, we asked them to verify that their complaints related to such work. It should be noted that all work at new schools was supervised by SCA.

School Officials' Ratings of SCA-Supervised Work

Table Nos. 3 and 4 tabulate the responses we received for the 38 schools (12 newly constructed and 26 modernized). It shows that 33 percent of the officials from new schools and 46 percent of those from modernized schools believed that the work supervised by SCA was less than adequate.

---

[4] See Appendix C for a list of schools that responded to the survey.

TABLE 3

SCHOOL OFFICIALS' RATINGS OF THE PHYSICAL CONDITION OF SCA NEW SCHOOLS

Rating	Number of New Schools	Percentage of Total Responses
Excellent	2	16.7%
Good	2	16.7%
Adequate	2	16.7%
Fair	3	25.0%
Poor	1	8.2%
No Response	2	16.7%
Total	12	100.0%

TABLE 4

SCHOOL OFFICIALS' RATINGS OF SCA MODERNIZATION PROJECTS

Rating	Number of Schools with Modernization Projects	Percentage of Total Responses
Excellent	2	7.7%
Good	4	15.4%
Adequate	5	19.2%
Fair	7	26.9%
Poor	5	19.2%
No Response	3	11.6%
Total	26	100%

In addition, officials at 25 of the 38 responding schools (66 percent) believed that because of poor construction, it had been necessary to perform excessive maintenance or repairs on items that were newly constructed or modernized by SCA. (Eighteen of the 25 respondents cited poor construction as the only cause of excessive maintenance and repairs; the remaining 7 cited other factors as well, including vandalism and miscellaneous factors.)

Summary By Category of School Officials' Responses

There were eight categories of construction-related items where more than 25 percent of the respondents believed that there were deficiencies relating to SCA supervised work. The most frequent criticisms were related to heating, ventilation and air conditioning work (68 percent). The respondents were also highly critical of the plumbing work that was performed (42 percent), design work (37 percent), electrical work (34 percent), and public address and fire alarms (32 percent).

Following are examples of school officials' comments to our questionnaire as well as observations we made during our field visits to the schools.

- A Brooklyn high school official indicated in his questionnaire that the heating, ventilation and air conditioning were poor. We visited this modernized high school and were told that ten newly constructed classrooms could not be used because of a lack of heat and ventilation.

- A Manhattan elementary school principal wrote, "Face of building leaks!" We visited the new school and observed many water leaks which the principal attributed to problems with the school's new aluminum facade.

- "Floors which were installed over old flooring were not prepared properly," reported a Brooklyn high school principal. We visited this high school and observed that a music room was not being used because a newly installed floor was badly warped and tiles were coming off. Similarly, we saw that the kitchen floor was cracked at another high school. School officials said that the floor cracked almost immediately after installation and indicated that a $50,000 repair has been scheduled.

- A principal from a Brooklyn vocational high school reported that a new freight elevator had broken down and required an overhaul. During our visit to this high school we confirmed that the freight elevator, used to transport cars to the shops, was out of service. Consequently, students could not work on cars in any of the upstairs repair shops.

SCA strongly objected to our conclusions relating to the survey of school officials. Its response to our draft report questioned whether school officials were qualified to assess the quality of construction work and claimed that our survey methodology does not comply with auditing standards promulgated by the Comptroller General of the United States. We have carefully reviewed these standards and note that, the standards specifically indicate that testimonial evidence obtained through questionnaires is an acceptable form of audit evidence.

SCA's response also indicated that the, "Determination of causal factors leading to the conditions reported were never researched by the audit as being in fact construction defects vs. normal wear and tear, misuse, poor maintenance or simply that what was approved to be built by the client was not necessarily what was requested or expected by the polled individuals."

As stated previously, this section of the report presents the opinions of the school officials who responded to our survey. In addition, we made follow-up phone calls and visits to these officials to confirm that the reported conditions existed and that the officials' complaints were about work that they believed was supervised by SCA. We also requested SCA to provide us with documentation to show that the 128 conditions reported in the questionnaires were not caused by deficiencies in the construction work. However, SCA chose to investigate only three of the 128 conditions we reported. We agreed that its explanations for problems relating to the installation of doors and electrical outlets were valid and removed the conditions relating to them from our report.

Furthermore, we believe that SCA needs to address the fact that so many school officials have negative opinions concerning work supervised by the Authority. SCA needs to change these negative perceptions by establishing better communication channels with school officials. This could be accomplished by establishing procedures to ensure that the views of school officials are solicited and that the concerns of these officials are addressed.

School Officials' Ratings of Selected Contractors

An SCA official informed us that SCA did not solicit the opinions of the principals regarding the results of the SCA-supervised work. In addition, our review of SCA's files indicated that SCA often failed to perform final evaluations of the completed work as required. SCA's procedures require that project officers prepare final evaluations of contractors before final payment is made. Final evaluations rate the contractor's performance on a scale of Unsatisfactory through Excellent in 41 categories, such as, "Quality of contractor's work." As we reported in Chapter II, SCA did not perform final evaluations for 58 of 62 sampled projects.

We examined our questionnaires and selected five contractors whose work was rated poorly by school officials. We obtained listings of the contracts awarded to these firms and found that four contractors were awarded additional contracts. For example:

- On June 27, 1995, a contractor was awarded an $18.7 million construction contract to complete a new school. The principals of three of the four responding schools where this firm previously worked reported in their responses to our questionnaires that excessive maintenance or repairs were necessary because of poor construction work. The principal of one of these schools indicated that, "More than $500,000 in additional costs were necessary to 'repair' poor construction and poor design features. Moreover, almost three months prior to the $18.7 million contract award, the principal of one of the schools where this contractor built an addition to the school wrote to SCA to complain about the quality of the work performed. Furthermore, there is no evidence that SCA ever performed required final evaluations of this contractor's performance at any of these schools. Because of SCA's lack of adherence to its evaluation procedures, this firm was still on SCA's list of prequalified firms through June 30, 1996.

- Officials at five schools complained about poor construction by another contractor. The completion dates for these projects ranged from March 1992 to August 1994. The principal of the last school to be completed also stated in the questionnaire that the, "General contractor left building without completion of major items." On December 16, 1991 an official from one of the five schools wrote a letter to SCA which stated that many problems resulted from the contractor's

work on the project. His letter delineated 17 areas where there were specific complaints about the quality of the work. His letter stated that, "The shoddy workmanship and in some cases inferior equipment have caused many of the aforementioned problems." There was no evidence in SCA's files that it ever performed final evaluations of this firm's performance at these schools. On March 5, 1993, SCA awarded this contractor a modernization contract for $19.3 million. The firm was still on SCA's prequalified list through November 30, 1995.

Recommendations

The New York City School Construction Authority should:

18. Prepare final evaluations after the completion of all projects and ensure that evaluations include input from Board of Education officials.

SCA did not specifically address the matters discussed in this recommendation

19. Establish better communications with school officials in order to improve their perception of SCA's performance.

SCA responded that it, ". . . has in the past , and will continue to work with school principals and other school officials to provide the highest quality work in a manner acceptable to the schools within the parameters of its mandate from the BOE." We believe that the results of our survey clearly demonstrate the need to improve such communication.

20. Ensure that contractors with a history of poor performance do not obtain new contracts.

SCA did not specifically address the matters discussed in this recommendation.

APPENDIX A

LIST OF CONTRACT AMOUNTS AT THE TIME OF OUR REVIEW

Contract Descriptions	West Queens High School	P.S. 152 (Brooklyn)
Design Contract Initial Amount	$765,000	$370,000
Supplemental Agreements *	4,910,352	1,557,284
Total	5,675,352	1,927,284
Construction Management Contract Initial Amount	3,596,000	1,621,000
Supplemental Agreements	565,000	0
Total	4,161,000	1,621,000
Construction Contract Initial Amount	63,175,000	22,666,000
Change Orders	4,379,641	920,905
Total	67,554,641	23,586,905
Grand Total	$77,390,993	$27,135,189
Percent Completed	78%	60%

* Initially SCA negotiated the cost of Phase I with each of the design firms since it was considered premature to negotiate the full scope, including Phase II and Phase III, until the project was more fully defined. Costs associated with Phases II and III were added as supplemental agreements.

STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER
270 BROADWAY
NEW YORK, NEW YORK 10007

H. CARL McCALL
STATE COMPTROLLER

ROSEMARY SCANLON
ASSISTANT DEPUTY COMPTROLLER
FOR THE CITY OF NEW YORK

May 4, 1995

Principal
Sample School
NY, NY

Dear Respondent:

The State Comptroller's Office is performing an audit of the School Construction Authority. We are contacting principals, teachers, parents and custodians and asking for information about the physical condition and capabilities of their schools. Our survey is similar to a questionnaire sent to a sample of schools by the United States General Accounting Office, however we are only contacting schools that were constructed by the Authority. All of our questions pertain to the time period from completion of construction by the Authority until the present.

Most of the questions should be applicable for new schools, mini schools and additions. However, many questions may not be applicable for existing schools that were modernized. We are asking personnel at such schools to answer questions numbered 1 through 7 as well as applicable sections of questions 8 through 10. If you are commenting about any problems, please indicate specific room numbers or locations when possible. We would especially appreciate comments concerning any condition that you rate less than adequate.

Our report will summarize the responses that we receive so that individuals cannot be identified. We are conducting this survey with only a small number of schools so the data on your school is very important. If you have questions about the survey please call Mr. Barry Mordowitz or Ms. Debra Wolrich. Please mail your completed questionnaire in the enclosed stamped self addressed envelope within two weeks. Thank you for your cooperation in this very important effort.

Sincerely yours,

Barry Mordowitz
Audit Supervisor

1. **NAME OF SCHOOL:**

_____

RE: _____

2. **Your Name and Title** _____

How long have you been at the school?
Less than 6 month
6 month - 1 year
Over 1 year

3. **What type of school is this?** *Circle one.*

REGULAR elementary or secondary

SPECIAL EDUCATION--primarily serves students with disabilities

VOCATIONAL/TECHNICAL--primarily serves students being trained for occupations

ALTERNATIVE--offers a curriculum designed to provide alternative or nontraditional education; does not specifically fall into the categories of regular, special education, or vocational school

4. **How many students were enrolled in this school around the first of October, 1994?**

_____
total FTE students

5. **Does this school house any of its students in instructional facilities located off of its site, such as rented space in another school, church, etc.?** *Circle one Yes No*

6. **How many of this school's students are housed in off-site instructional facilities?**

_____ FTE students housed off-site

7. **For modernization projects only:**

How would you rate the quality of the modernization project performed at your school. Please review the standards below and circle one description. We would also appreciate any comments that you might have.

Excellent: new or easily restorable to "like new" condition; only minimal routine maintenance required.

Good: only routine maintenance or minor repair required.

Adequate: some preventive maintenance and/or corrective repair required.

Fair: fails to meet code and functional requirement in some cases; failure(s) are inconvenient; extensive corrective maintenance and repair required.

Poor: consistent substandard performance; failure(s) are disruptive and costly; fails most code and functional requirements; requires constant attention, renovation, or replacement. Major corrective repair or overhaul required.

Replace: non-operational or significantly substandard performance. Replacement required.

	Excellent	Good	Adequate	Fair	Poor	Replace	N/A Unknown	Total
Modernization	*2*	*4*	*5*	*7*	*5*	*0*	*3*	*26* *

Comments:_____

* Numbers in italics represent tabulations of school officials' responses to the question.

8. Overall, what is the physical condition of each of the building features listed below for this school's on-site buildings? Refer to the rating scale shown below, and circle one for EACH building feature listed.

Rating Scale

Excellent: new or easily restorable to "like new" condition; only minimal routine maintenance required.

Good: only routine maintenance or minor repair required.

Adequate: some preventive maintenance and/or corrective repair required.

Fair: fails to meet code and functional requirement in some cases; failure(s) are inconvenient; extensive corrective maintenance and repair required.

Poor: consistent substandard performance; failure(s) are disruptive and costly; fails most code and functional requirements; requires constant attention, renovation, or replacement. Major corrective repair or overhaul required.

Replace: non-operational or significantly substandard performance. Replacement required.

Building Feature	Excellent	Good	Adequate	Fair	Poor	Replace	N/A Unknown	Total
Roof	*3*	*0*	*3*	*3*	*1*	*0*	*2*	*12*
Framing, floors, foundations	*2*	*5*	*1*	*0*	*1*	*1*	*2*	*12*
Exterior walls, finishes, windows, doors	*2*	*1*	*2*	*2*	*2*	*1*	*2*	*12*
Interior finishes, trims	*2*	*2*	*3*	*1*	*1*	*1*	*2*	*12*
Plumbing	*2*	*1*	*1*	*2*	***4***	***0***	***2***	***12***
Heating, ventilation, air conditioning	*1*	*1*	*1*	*0*	*5*	*2*	*2*	*12*
Electrical power	*3*	*1*	*2*	*1*	***3***	***0***	***2***	*12*
Electrical lighting	*3*	*3*	*1*	*1*	*2*	***0***	*2*	*12*
The over all condition of the building	*2*	*2*	*2*	*3*	*1*	*0*	*2*	*12*

* Numbers in italics are responses by officials from new schools.

9. Has it Been Necessary To Perform Excessive Maintenance Or Repairs On Items That Were Newly Constructed Or Modernized? *31 Yes, 7 No* *

If So, Was The Problem Caused By:

1. Vandalism	*6* *
2. Normal wear and tear	*4*
3. Over use	*0*
4. Poor Construction	*25*
5. Other	*3*
Total	*38*

Note: Seven schools cited two causes.

Comments: _____

* Numbers in italics represent tabulations of school officials' responses to the question.

APPENDIX C

LIST OF SCHOOLS THAT RESPONDED TO SURVEY

School	Description	Completion Date	Cost *
I.S. 306 Bronx	New School	February 1994	$56,931,123
Transit Technology H.S.	Modernization	August 1993	33,599,000
P.S./ I.S. 217 Manhattan	New School	September 1992	29,885,503
P.S. 23 Bronx	New School	September 1992	29,350,616
I.S. 218 Manhattan	New School	February 1992	28,421,159
P.S. 92 Queens	Replacement School	February 1993	27,533,826
Telecom. Arts & Technology H.S.	Modernization	June 1993	27,254,588
Bayside H.S.	Modernization	September 1992	27,227,941
P.S. 6 Brooklyn	New School	September 1993	25,005,799
Taft H.S.	Modernization	February 1993	22,616,903
Ralph McKee Voc. H.S.	Modernization	March 1992	18,026,000
J.H.S. 117 Bronx	Modernization	August 1994	17,285,134
I.S. 246 Brooklyn	Addition	August 1994	16,918,117
P.S. 82 Queens	Addition	September 1994	13,622,972
P.S. 152 Manhattan	Modernization/Addition	September 1991	11,146,202
P.S. 209 Bronx	New School	January 1994	10,169,295
P.S. 50 Queens	Modernization	May 1994	10,015,280
P.S. 64 Queens	Addition	March 1992	9,100,856
P.S. 128 Manhattan	Addition	September 1994	7,917,149
Clara Barton H.S.	Modernization	January 1993	7,510,281
A. Philip Randolph H.S.	Modernization	August 1991	7,301,707
P.S. 15 Queens	Addition	April 1994	6,950,873
P.S. 754 Bronx	Spec. Ed. Enhancement	July 1992	6,683,481
P.S. 62 Queens	Addition	September 1991	6,666,545
P.S. 12 Bronx	Modernization	February 1992	6,211,771
P.S. 235 Brooklyn	Mini School	September 1991	6,128,574
P.S. 131 Queens	Modernization	May 1994	5,962,325
P.S. 55 Queens	Mini School	September 1992	5,862,580
Automotive Trades Voc. H.S.	Modernization	December 1991	5,199,506
P.S. 233/752 Queens	Modern./Mini School	April 1992	4,623,000
P.S. 47 Queens	Mini School	August 1991	4,319,815
P.S. 173 Manhattan	Modernization/Addition	September 1991	3,869,923
P.S. 9 Bronx	Modernization	December 1993	3,769,046
P.S. 169 Brooklyn	Mini School	September 1991	3,412,880
P.S. 199 Queens	Addition	April 1991	2,987,298
P.S. 11 Queens	Mini School	October 1990	2,564,250
Truman H.S.	Modernization	March 1992	1,692,473
P.S. 269 Brooklyn	Modernization/Addition	January 1991	1,670,575
Total			$515,414,366

* Note - Cost figures are unaudited

APPENDIX D

MAJOR CONTRIBUTORS TO THIS REPORT

Eileen Sullivan
David R. Hancox
Carmen Maldonado
Stanley Evans
Barry Mordowitz
Debra Wolrich
Karl Koller
William Lichtenberg
Erica Mezich

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

NOTICE

REPRODUCTION BASIS

☒ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").